



March 15, 2011

TO: Peter Hahn  
Director

FROM: Eric Widstrand, PE, PTOE  
City Traffic Engineer

**RE: NE 125<sup>th</sup> St Rechannalization Decision Memo**

I recommend that SDOT move forward with the rechannalization of NE 125<sup>th</sup> St between Roosevelt Way NE and 28<sup>th</sup> Avenue NE based on our evaluation of existing and future traffic conditions within this corridor. I do not recommend changing the existing channelization or parking conditions on NE 125<sup>th</sup> Street from 28<sup>th</sup> Avenue NE to 35<sup>th</sup> Avenue NE. I recommend this work be completed in 2011 when weather conditions permit. Average daily traffic volumes and travel time analysis support my recommendations. It is my expectation that the NE 125<sup>th</sup> Street rechannalization project will result in safety improvements and reduced travel speeds along the corridor.

NE 125<sup>th</sup> St: Roosevelt Way NE to 28<sup>th</sup> Ave NE



After rechannelization is complete, NE 125<sup>th</sup> St will have one travel lane in each direction with a two-way left turn lane and bicycle lanes on both sides of the street. In order to accommodate turning movements, right-turn lanes will remain at the signalized intersection of 15<sup>th</sup> Avenue NE (this right turn lane will also function as a through lane for buses and bikes). This configuration will have a traffic calming effect for drivers speeding in this corridor and is likely to reduce collisions and their severity for all modes of travel in the corridor. SDOT is working with Metro to consolidate transit stops along the corridor to reduce the delay in-lane stops have on travel times. It is illegal for vehicles to use the two-way left-turn lane to pass a bus stopped in the through lane and this will be monitored after completion. There will be no impacts to parking because there is no existing parking within the project area. Asphalt repair for the curbside lane and drain grate replacement are required prior to restriping the roadway. This work is being coordinated with the Street Maintenance Division of SDOT and Seattle Public Utilities for the drain grate replacement.

### **Traffic Data and Analysis**

A survey of the collision data between January 2007 and April 2010 found that there were 153 collisions during that time and 51 percent of those collisions result in injuries on NE 125<sup>th</sup> St. (33 percent is average for city wide minor arterials). In addition, during the last 3 years there were 13 collisions involving pedestrians and 3 bicycle collisions. The detailed bicyclist and pedestrian collision summary can be found at the end of this memo.

Using traffic counts collected in 2009 and historical data collected by SDOT since 2001, average daily traffic (ADT) has decreased in the corridor from a high of 18,267 in 2001 to a low of 15,314 in 2009; which is a 17 percent decrease in volume. This shows a steady decline in traffic over the past several years. The 85<sup>th</sup> percentile speed on the corridor is 40 MPH. National studies have shown that rechannelizing a road like NE 125<sup>th</sup> St can reduce travel speeds. On Stone Way N the 85<sup>th</sup> percentile speed dropped approximately one mile per hour northbound and three miles per hour southbound. More dramatically, the number of motor vehicles exceeding the speed limit by 10 miles per hour or more dropped approximately 75 percent.

Some people ask if additional traffic signals can be installed to minimize speeding. The answer to this is no. Traffic signals are not installed for traffic calming or to reduce speeding. They are installed to assign right of way and only when Federal guidelines are met.

Further, travel times in the corridor were measured by SDOT staff this summer. Currently, it takes approximately 3 minutes to travel from Roosevelt to 28<sup>th</sup> Avenue NE during both morning and evening commute. With the rechannelization in place, we estimate it will take roughly three and a half minutes. Projecting 10 years ahead, with a generous 1 percent annual increase

in traffic volumes, the travel time would increase by 30 to 40 seconds with the rechannelization.

### NE 125<sup>th</sup> St Traffic Analysis

	Existing	Post-Rechannelization
Average weekday traffic volume		
Eastbound	7730	No change
Westbound	7584	No change
AM peak hour traffic volume		
Eastbound	549	No change
Westbound	553	No change
PM peak hour traffic volume		
Eastbound	746	No change
Westbound	787	No change
AM hour peak travel time*		
Eastbound	2 min 55 sec	3 min 8 sec (13 sec increase)
Westbound	3 min 1 sec	3 min 22 sec (21 sec increase)
PM peak hour travel time*		
Eastbound	3 min 13 sec	3 min 17 sec (4 sec increase)
Westbound	3 min 18 sec	3 min 43 sec (25 sec increase)
Metro in-lane bus stops**		
Eastbound	7	2
Westbound	8	3
Total Metro dwell time per direction**		
Eastbound	1 min 42 sec	26 sec (1 min 16 sec decrease)
Westbound	2 min	45 sec (1 min 15 sec decrease)

\*Proposed assumes signal optimization

\*\*Proposed requires outreach by Metro to confirm stop consolidation.

### Outreach

SDOT hosted a well-attended community meeting on July 26th at the Lake City Library. The Mayor hosted a town hall meeting on September 16<sup>th</sup> where the NE 125<sup>th</sup> Street road diet was the main topic of discussion. SDOT received more than 400 email and phone call comments. Additionally, SDOT sent a press release about the project proposal to all Seattle media and local neighborhood blogs. Door hangers were placed on all properties on NE 125th from Roosevelt Way NE to 35th Avenue NE. Fliers were distributed to local businesses, the community center at several community events, the local farmers market and the library through the Department

of Neighborhoods (DON) coordinator. E-mail notices of the proposal were sent to more than 50 neighborhood organizations, such as community groups, business groups, churches, etc. Email notices were also relayed through a local resident to more than 400 other area residents. We will announce the final project determination in a press release along with an email to the 400 plus citizens on SDOT's project distribution list. We will also send a response to the questions and comments received to the citizens on the distribution list.

### **Before and After Analysis**

After the road diet has been completed, SDOT will optimize the traffic signals to account for any changes in traffic flow using a longer cycle length in the evening commute period. Traffic Management staff will monitor collisions, volumes, speed, and traffic flow after 3 months and again at 12 months to ensure that all is operating as expected. One year after implementation of the road diet, SDOT will conduct a before and after study to report on the findings relative to collisions, speeds, volumes and potential traffic diversions.

Traffic diversion to local streets and parallel arterials is a concern commonly brought up relating to road diet projects. The concern stems from a common perception that increased delay will lead traffic to divert to other routes. Analysis from the Stone Way road diet demonstrates that no additional traffic uses adjacent neighborhood streets after a road diet is completed and traffic volumes demonstrate that parallel arterials do not experience an increase in traffic when another arterial is rechannelized. There has been no feedback from neighborhoods adjacent to Fauntleroy Way and Nickerson Street indicating that any traffic diversion has occurred; data on traffic diversion or the absence of it will be collected in the follow-up analysis on each of these corridors.

**Pedestrian and Bicycle Collision Summary between Roosevelt Way NE to 35<sup>th</sup> Ave NE (1/1/07 to 4/20/10)**

Date/time	Ped age/sex	Intersection	Pedestrian Action	Driver Action
7-1-09 19:00	61/male	NE 125 <sup>th</sup> St and 15 <sup>th</sup> Ave NE	Crossing NE 125 <sup>th</sup> St with walk signal	Attempted right turn on red – driver issued citation
6-11-08 14:41	23/male	NE 125 <sup>th</sup> St and 11 <sup>th</sup> Ave NE	Crossing 11 <sup>th</sup> Ave NE at NE 125 <sup>th</sup> St in unmarked crosswalk	Turning right onto NE 125 <sup>th</sup> St – no citation
5-20-07 13:51	45/male	NE 125 <sup>th</sup> St and 22 <sup>nd</sup> Ave NE	Crossing NE 125 <sup>th</sup> in wheelchair in unmarked crosswalk	Driver did not stop for ped in unmarked crosswalk – driver issued citation
5-20-09 14:06	15/female	NE 125 <sup>th</sup> St and 28 <sup>th</sup> Ave NE	Crossing NE 125 <sup>th</sup> St with 2 friends – she was cited for prohibited crossing between signals although this is a legal unmarked crosswalk	Multiple threat collision with curb lane stopped for the peds and inside lane did not stop – driver cited for no proof of insurance
10-10-09 12:50	42/female	NE 125 <sup>th</sup> St and 30 <sup>th</sup> Ave NE	Crossing NE 125 <sup>th</sup> with walk signal	Attempted right turn on red – hit and run
2-9-08 15:19	54/female	NE 125 <sup>th</sup> St and 30 <sup>th</sup> Ave NE	Crossing NE 125 <sup>th</sup> with walk signal	Left turn from 30 <sup>th</sup> Ave NE struck ped in crosswalk – driver issued citation
12-20-09 14:28	50/male	NE 125 <sup>th</sup> St and 30 <sup>th</sup> Ave NE	Crossing NE 125 <sup>th</sup> with walk signal	Left turn from 30 <sup>th</sup> Ave NE struck ped in crosswalk – driver issued citation
8-13-09 18:20	58/male	NE 125 <sup>th</sup> St and 32 <sup>th</sup> Ave NE	Crossing 32 <sup>nd</sup> Ave NE at NE 125 <sup>th</sup> St in unmarked crosswalk	Driver did not stop – driver issued citation

11-10-09 17:45	Male no age reported	NE 125 <sup>th</sup> St and Lake City Way NE	Crossing NE 125 <sup>th</sup> St in crosswalk with Walk signal	Attempted right turn on red – driver issued citation
1-31-10	59/female	NE 125 <sup>th</sup> St and 17 <sup>th</sup> Ave NE	Crossing NE 125 <sup>th</sup> St in an unmarked crosswalk	Motorcyclist inside lane did not stop -
11-6-08 13:16	22/female	NE 125 <sup>th</sup> St and driveway (near 27 <sup>th</sup> Ave NE	Walking on NE 125 <sup>th</sup> St	Driver made a right turn exiting driveway and didn't look right – hit and run
4-12-07 11:30	53/male	NE 125 <sup>th</sup> St and Lake City Way NE	Crossing NE 125 <sup>th</sup> behind vehicle stopped to make a left turn	Driver backed up 2' and struck ped – hit and run
2-26-09 19:50	20/female	NE 125 <sup>th</sup> St and Lake City Way NE	Crossing between 30 <sup>th</sup> and LCW transported to HMC and mailed citation	
10-4-07 16:37	49/male 50/female	NE 125 <sup>th</sup> St and Lake City Way NE	Crossing NE 125 <sup>th</sup> had to go behind a vehicle stopped but blocking crosswalk	Driver 87/male – claims light was green – no citation issued
<b>Date/time</b>	<b>Bicyclist age/sex</b>	<b>Intersection</b>	<b>Bicycle Action</b>	<b>Driver Action</b>
3-18-09 16:53	34/male	NE 125 <sup>th</sup> St and 12 <sup>th</sup> Ave NE	Riding eastbound in curb lane	Struck bicyclist merging into curb lane-hit and run
9-4-09 6:59	34/male	NE 125 <sup>th</sup> St and 20 <sup>th</sup> Ave NE	Riding westbound in curb lane	Struck bicyclist making a northbound left turn – driver issued citation
10-17-08 10:31	58/male	NE 125 <sup>th</sup> St and Lake City Way NE	Crossing NE 125 <sup>th</sup> St in crosswalk with Walk signal	Attempted right turn on red – driver issued citation